IN THE CLAIMS

Please amend the claims as follows:

1. (Original) The peptide comprising an amino acid sequence with at least 90% identity to SEQ ID NO:7.

2. (Currently amended) A peptide comprising ~~SEQ ID NO:5 or~~ SEQ ID NO:7.

3. (Currently amended) An inhibitor of hypoxia-inducible factor 1 alpha ubiquitination ~~comprising a peptide of formula I or II~~ consisting of a peptide of formula II:

~~Xaa_1-Xaa_2-Xaa_3-Xaa_4-Xaa_5-Xaa_6-Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-Xaa_{12}-Xaa_{13}-Xaa_{14}-Xaa_{15}-Xaa_{16}-Xaa_{17}-Xaa_{18}-Xaa_{19} (I)~~

Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-Xaa_{12} Xaa_{13}-Xaa_{14} (II)

wherein

~~Xaa_1, Xaa_3, Xaa_5,~~ Xaa_{14}, ~~Xaa_{15} and Xaa_{16} are each a separate~~ is an acidic amino acid;

~~Xaa_2, Xaa_4,~~ Xaa_7, Xaa_8, and Xaa_{11} ~~and Xaa_{19}~~ are each a separate aliphatic amino ~~acids~~ acid;

~~Xaa_6,~~ Xaa_{10} ~~and Xaa_{18} are each a separate~~ is a polar amino acid;

Xaa_9 is hydroxyproline; and

Xaa_{12} and Xaa_{13} are separately an apolar amino acid ~~such as methionine, glycine or proline; and~~

~~Xaa_{17} is an aromatic amino acid such as phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine~~.

4. (Original) The inhibitor of claim 3 wherein the acidic amino acid is aspartic acid or glutamic acid.

5. (Currently amended) The inhibitor of claim 3 wherein the aliphatic amino acid is alanine, valine, leucine, isoleucine, ~~t-butylalanine,~~ n-butylalanine, t-butylalanine, N–methylisoleucine, norleucine, N-methylvaline, cyclohexylalanine, β-alanine, N-methylglycine, or α-aminoisobutyric acid.

6. (Original) The inhibitor of claim 3 wherein the polar amino acid is asparagine, glutamine, serine, threonine, tyrosine, citrulline, N-acetyl lysine, methionine sulfoxide, or homoserine.

7. (Original) The inhibitor of claim 3 wherein the apolar amino acid is methionine, glycine or proline.

8. (Cancelled)

9. (Currently amended) The inhibitor of claim 3 wherein the peptide comprises an amino acid sequence with at least 90% identity to SEQ ID NO:4~~, SEQ ID NO:5~~ or SEQ ID NO:7.

10. (Currently amended) The inhibitor of claim 3 wherein the peptide has an amino acid sequence comprising SEQ ID NO:4~~, SEQ ID NO:5~~ or SEQ ID NO:7.

11. (Currently amended) An inhibitor of hypoxia-inducible factor 1 alpha ubiquitination ~~comprising a peptide of formula I or II~~ consisting of a peptide of formula II:

~~Xaa_1-Xaa_2-Xaa_3-Xaa_4-Xaa_5-Xaa_6-Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-Xaa_{12}-Xaa_{13}-Xaa_{14}-Xaa_{15}-Xaa_{16}-Xaa_{17}-Xaa_{18}-Xaa_{19} (I)~~

Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-Xaa_{12} Xaa_{13}-Xaa_{14} (II)

wherein

~~Xaa_1, Xaa_3, Xaa_5,~~ Xaa_{14}~~, Xaa_{15} and Xaa_{16} are each a separate~~ is an acidic amino acid;

~~Xaa_2, Xaa_4,~~ Xaa_7, Xaa_8, and Xaa_{11} ~~and Xaa_{19}~~ are each a separate aliphatic amino ~~acids~~ acid;

~~Xaa_6,~~ Xaa_{10} ~~and Xaa_{18} are each a separate~~ is a polar amino acid;

Xaa_9 is hydroxyproline; and

Xaa_{12} and Xaa_{13} are separately an apolar amino acid ~~such as methionine, glycine or proline; and~~

~~Xaa_{17} is an aromatic amino acid such as phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine~~.

12. (Original) The activator of claim 11 wherein the acidic amino acid is aspartic acid or glutamic acid.

13. (Currently amended) The activator of claim 11 wherein the aliphatic amino acid is alanine, valine, leucine, isoleucine, ~~t-butylalanine,~~ n-butylalanine, t-butylalanine, N-methylisoleucine, norleucine, N-methylvaline, cyclohexylalanine, β-alanine, N-methylglycine, or α-aminoisobutyric acid.

14. (Original) The activator of claim 11 wherein the polar amino acid is asparagine, glutamine, serine, threonine, tyrosine, citrulline, N-acetyl lysine, methionine sulfoxide, or homoserine.

15. (Original) The activator of claim 11 wherein the apolar amino acid is methionine, glycine or proline.

16. (Cancelled)

17. (Currently amended) The activator of claim 11 wherein the peptide comprises an amino acid sequence with at least 90% identity to SEQ ID NO:4~~, SEQ ID NO:5~~ or SEQ ID NO:7.

18. (Currently amended) The activator of claim 11 wherein the peptide has an amino acid sequence comprising SEQ ID NO:4~~, SEQ ID NO:5~~ or SEQ ID NO:7.

19. (Currently amended) A pharmaceutical formulation comprising a peptide of formula I or II and a pharmaceutically acceptable carrier:

Xaa_1-Xaa_2-Xaa_3-Xaa_4-Xaa_5-Xaa_6-Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-
Xaa_{12}-Xaa_{13}-Xaa_{14}-Xaa_{15}-Xaa_{16}-Xaa_{17}-Xaa_{18}-Xaa_{19} (I)

Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-Xaa_{12} Xaa_{13}-Xaa_{14} (II)

wherein

Xaa_1, Xaa_3, Xaa_5, Xaa_{14}, Xaa_{15} and Xaa_{16} are each a separate acidic amino acid;

Xaa_2, Xaa_4, Xaa_7, Xaa_8, Xaa_{11} and Xaa_{19} are each a separate aliphatic amino acids;

Xaa_6, Xaa_{10} and Xaa_{18} are each a separate polar amino acid;

Xaa_9 is hydroxyproline;

Xaa_{12} and Xaa_{13} are separately an apolar amino acid ~~such as methionine, glycine or proline~~; and

Xaa_{17} is an aromatic amino acid ~~such as phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine~~.

20. (Original) The pharmaceutical formulation of claim 19 wherein the acidic amino acid is aspartic acid or glutamic acid.

21. (Currently amended) The pharmaceutical formulation of claim 19 wherein the aliphatic amino acid is alanine, valine, leucine, isoleucine, ~~t-butylalanine,~~ n-butylalanine, t-butylalanine, N–methylisoleucine, norleucine, N-methylvaline, cyclohexylalanine, β-alanine, N-methylglycine, or α-aminoisobutyric acid.

22. (Original) The pharmaceutical formulation of claim 19 wherein the polar amino acid is asparagine, glutamine, serine, threonine, tyrosine, citrulline, N-acetyl lysine, methionine sulfoxide, or homoserine.

23. (Original) The pharmaceutical formulation of claim 19 wherein the apolar amino acid is methionine, glycine or proline.

24. (Original) The pharmaceutical formulation of claim 19 wherein the aromatic amino is phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine.

25. (Original) The pharmaceutical formulation of claim 19 wherein the peptide comprises an amino acid sequence with at least 90% identity to SEQ ID NO:4, SEQ ID NO:5 or SEQ ID NO:7.

26. (Original) The pharmaceutical formulation of claim 19 wherein the peptide has an amino acid sequence comprising SEQ ID NO:4, SEQ ID NO:5 or SEQ ID NO:7.

27. (Currently amended) The pharmaceutical formulation of claim 19 that is administered in conjunction with a wound dressing.

28. (Original) The pharmaceutical formulation of claim 19 that is a sustained release formulation.

29. (Currently amended) The pharmaceutical formulation of claim 19 that is administered in conjunction with a surgical implant.

30. (Withdrawn) A method of inhibiting hypoxia-inducible factor 1 alpha ubiquitination in a mammalian cell comprising contacting a mammalian cell with a peptide of formula I or II:

Xaa_1-Xaa_2-Xaa_3-Xaa_4-Xaa_5-Xaa_6-Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-
Xaa_{12}-Xaa_{13}-Xaa_{14}-Xaa_{15}-Xaa_{16}-Xaa_{17}-Xaa_{18}-Xaa_{19} (I)

Xaa_7-Xaa_8-Xaa_9-Xaa_{10}-Xaa_{11}-Xaa_{12} Xaa_{13}-Xaa_{14} (II)

wherein

Xaa_1, Xaa_3, Xaa_5, Xaa_{14}, Xaa_{15} and Xaa_{16} are each a separate acidic amino acid;

Xaa_2, Xaa_4, Xaa_7, Xaa_8, Xaa_{11} and Xaa_{19} are each a separate aliphatic amino acids;

Xaa_6, Xaa_{10} and Xaa_{18} are each a separate polar amino acid;

Xaa_9 is hydroxyproline;

Xaa_{12} and Xaa_{13} are separately an apolar amino acid such as methionine, glycine or proline; and

Xaa_{17} is an aromatic amino acid such as phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine.

31. (Withdrawn) The method of claim 30 wherein the acidic amino acid is aspartic acid or glutamic acid.

32. (Withdrawn) The method of claim 30 wherein the aliphatic amino acid is alanine, valine, leucine, isoleucine, t-butylalanine, t-butylalanine, N–methylisoleucine, norleucine, N-methylvaline, cyclohexylalanine, β-alanine, N-methylglycine, or α-aminoisobutyric acid.

33. (Withdrawn) The method of claim 30 wherein the polar amino acid is asparagine, glutamine, serine, threonine, tyrosine, citrulline, N-acetyl lysine, methionine sulfoxide, or homoserine.

34. (Withdrawn) The method of claim 30 wherein the apolar amino acid is methionine, glycine or proline.

35. (Withdrawn) The method of claim 30 wherein the aromatic amino is phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine.

36. (Withdrawn) The method of claim 30 wherein the peptide comprises an amino acid sequence with at least 90% identity to SEQ ID NO:4, SEQ ID NO:5 or SEQ ID NO:7.

37. (Withdrawn) The method of claim 30 wherein the peptide has an amino acid sequence comprising SEQ ID NO:4, SEQ ID NO:5 or SEQ ID NO:7.

38. (Withdrawn) The method of claim 30 wherein the mammalian cell is a human cell and the method is performed in vivo.

39. (Withdrawn) The method of claim 30 wherein the method is performed in vitro.

40. (Withdrawn) A method of activating VEGF transcription in a mammalian cell comprising contacting a mammalian cell with a peptide of formula I or II:

$$Xaa_1\text{-}Xaa_2\text{-}Xaa_3\text{-}Xaa_4\text{-}Xaa_5\text{-}Xaa_6\text{-}Xaa_7\text{-}Xaa_8\text{-}Xaa_9\text{-}Xaa_{10}\text{-}Xaa_{11}\text{-}Xaa_{12}\text{-}Xaa_{13}\text{-}Xaa_{14}\text{-}Xaa_{15}\text{-}Xaa_{16}\text{-}Xaa_{17}\text{-}Xaa_{18}\text{-}Xaa_{19} \quad (I)$$

$$Xaa_7\text{-}Xaa_8\text{-}Xaa_9\text{-}Xaa_{10}\text{-}Xaa_{11}\text{-}Xaa_{12}\ Xaa_{13}\text{-}Xaa_{14} \quad (II)$$

wherein

Xaa_1, Xaa_3, Xaa_5, Xaa_{14}, Xaa_{15} and Xaa_{16} are each a separate acidic amino acid;

Xaa_2, Xaa_4, Xaa_7, Xaa_8, Xaa_{11} and Xaa_{19} are each a separate aliphatic amino acids;

Xaa_6, Xaa_{10} and Xaa_{18} are each a separate polar amino acid;

Xaa_9 is hydroxyproline;

Xaa_{12} and Xaa_{13} are separately an apolar amino acid such as methionine, glycine or proline; and

Xaa_{17} is an aromatic amino acid such as phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine.

41. (Withdrawn) The method of claim 40 wherein the acidic amino acid is aspartic acid or glutamic acid.

42. (Withdrawn) The method of claim 40 wherein the aliphatic amino acid is alanine, valine, leucine, isoleucine, t-butylalanine, t-butylalanine, N–methylisoleucine, norleucine, N-methylvaline, cyclohexylalanine, β-alanine, N-methylglycine, or α-aminoisobutyric acid.

43. (Withdrawn) The method of claim 40 wherein the polar amino acid is asparagine, glutamine, serine, threonine, tyrosine, citrulline, N-acetyl lysine, methionine sulfoxide, or homoserine.

44. (Withdrawn) The method of claim 40 wherein the apolar amino acid is methionine, glycine or proline.

45. (Withdrawn) The method of claim 40 wherein the aromatic amino is phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine.

46. (Withdrawn) The method of claim 40 wherein the peptide comprises an amino acid sequence with at least 90% identity to SEQ ID NO:4, SEQ ID NO:5 or SEQ ID NO:7.

47. (Withdrawn) The method of claim 40 wherein the peptide has an amino acid sequence comprising SEQ ID NO:4, SEQ ID NO:5 or SEQ ID NO:7.

48. (Withdrawn) The method of claim 40 wherein the mammalian cell is a human cell and the method is performed in vivo.

49. (Withdrawn) The method of claim 40 wherein the method is performed in vitro.

50. (New) The inhibitor of claim 3 wherein Xaa_{12} and Xaa_{13} are separately methionine, glycine, or proline.

51. (New) The activator of claim 11 wherein Xaa_{12} and Xaa_{13} are separately methionine, glycine or proline.

52. (New) The pharmaceutical formulation of claim 19 wherein:
Xaa_{12} and Xaa_{13} are separately methionine, glycine or proline; and
Xaa_{17} is phenylalanine, tyrosine, tryptophan, phenylglycine, naphthylalanine, β-2-thienylalanine, 1,2,3,4-tetrahydro-isoquinoline-3-carboxylic acid, 4-chlorophenylalanine, 2-fluorophenylalanine, 3-fluorophenylalanine, 4-fluorophenylalanine, pyridylalanine, or 3-benzothienyl alanine.